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SCOTT J. ULLERY

National Science Foundation
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TOWARD A FRAMEWORK FOR EVALUATING THE IMPACT OF
PROCEDURAL CHANGE UPON POLICY: THE CASE OF
THE KAIPAROWITS ENVIRONMENTAL IMPACT STATEMENT

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August 1977

LAKE POWELL RESEARCH PROJECT

The Lake Powell Research Project (formally known as Collaborative Research on Assessment of Man's Activities in the Lake Powell Region) is a consortium of university groups funded by the Division of Advanced Environmental Research and Technology in RANN (Research Applied to National Needs) in the National Science Foundation.

Researchers in the consortium bring a wide range of expertise in natural and social sciences to bear on the general problem of the effects and ramifications of water resource management in the Lake Powell region. The region currently is experiencing converging demands for water and energy resource development, preservation of nationally unique scenic features, expansion of recreation facilities, and economic growth and modernization in previously isolated rural areas.

The Project comprises interdisciplinary studies centered on the following topics: (1) level and distribution of income and wealth generated by resources development; (2) institutional framework

for environmental assessment and planning; (3) institutional decision-making and resource allocation; (4) implications for federal Indian policies of accelerated economic development of the Navajo Indian Reservation; (5) impact of development on demographic structure; (6) consumptive water use in the Upper Colorado River Basin; (7) prediction of future significant changes in the Lake Powell ecosystem; (8) recreational carrying capacity and utilization of the Glen Canyon National Recreation Area; (9) impact of energy development around Lake Powell; and (10) consequences of variability in the lake level of Lake Powell.

One of the major missions of RANN projects is to communicate research results directly to user groups of the region, which include government agencies, Native American Tribes, legislative bodies, and interested civic groups. The Lake Powell Research Project Bulletins are intended to make timely research results readily accessible to user groups. The Bulletins supplement technical articles published by Project members in scholarly journals.

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ABSTRACT

The National Environmental Policy Act (NEPA) of 1969 poses a potentially serious challenge to traditional energy decision-making by requiring decision-makers to consider the environmental impact of energy projects. The extent to which NEPA has effectively imposed upon the planning and construction of powerplants in the Lake Powell region is examined in terms of the substantive effects of NEPA's procedural requirement to prepare environmental impact statements. A review of some of the literature pertinent to this analysis finds the major approaches to evaluating NEPA deficient in some important respects. An alternative approach to evaluating the effect of the impact statement process upon substantive decision-making is offered which emphasizes the opportunities and limitations which NEPA presents to political actors. Finally, a description and analysis of the process by which the environmental impact statement was prepared for the Kaiparowits power project is presented in illustration of the Bulletin's thesis that an overemphasis upon the procedural requirements of NEPA may actually serve to legitimate the decisions which NEPA was intended to alter.

INTRODUCTION

The true test of a public policy's effectiveness is the difference it makes in the tough cases where conflicting interests reflecting different values could easily have overriding influence on whatever actions are taken. Our research has chosen electrical energy development decisions in the Southwest as a setting in which to examine the effectiveness of the National Environmental Policy Act of 1969 (NEPA). The central argument is that the extent of compliance with NEPA's procedural standards is an inadequate measure of the extent to which the Act's goals have been or will be realized, and may actually promote other unintended goals. The extent of substantive compliance with the goals of NEPA can best be judged by examining the actual policy-making process on real questions and by evaluating how NEPA is actually employed.

That national policy-makers are faced with many seriously important decisions concerning the nation's energy situation is all too obvious. Since 1973, if not before, federal decision-makers have grappled with the problems of reducing U.S. dependence upon uncertain energy sources outside the country. The components of the energy problem are multi-faceted: so much so that gaining a comprehensive understanding, not to mention formulating a comprehensive solution, is indeed a monumental task. Adding to the complexity of the problem is the fragmentation of the federal government structure. Decision-makers and administrators responsible for some aspect of the energy question are dispersed throughout scores of departments and agencies. Major centers of federal regulatory activities relevant to the extraction, transportation, and use of the major fuels and to the generation of electricity are spread throughout more than a dozen agencies.¹

The choices among alternative strategies for meeting the energy requirements of the country have profound implications for environmental quality. The electric power industry in particular has become the focus of environmental controversy in the last decade. In no area of the country have the environmental effects of electric power production been so centrally important a concern than in the Four Corners region (comprising the states of Utah, Colorado, Arizona, and New Mexico). The Western Energy Supply and Transmission Associates (WEST), a consortium of twenty-three electric utility companies serving the major metropolitan areas of the Southwest and Southern California, was formed in 1964 "to foster and encourage coordinated planning of large generating units and extra high voltage transmission lines and to sponsor research and development that is of particular interest to the utilities of this region."² Several of the member companies made plans in the early and middle 1960s to construct six large coal-fired generating stations in the region.³ These major projects were planned on the traditional bases of economic and technological efficiency to take advantage of the region's large coal deposits and Lake Powell water. Advances in high-voltage-transmission technology allowing for greater efficiency in long-distance transmission provided the opportunity for the construction of mine-mouth plants to avoid the threats of the stringent air quality standards imposed in California by, in effect, exporting the pollution. Among the conditions favoring the consortium in carrying out its plans for exploiting the region was also the presence of state and federal agencies with long-established stances sympathetic to development interests.

Before WEST's plans could mature beyond the construction of only two powerplants,⁴ federal agencies were confronted with an important new environmental mandate in the

form of NEPA. Passed by Congress and signed into law by President Nixon with very little notice or concern was this first statement of a comprehensive federal commitment to promoting more environmentally sensitive decision-making throughout the government. A Council on Environmental Quality (CEQ) was established in the Executive Office of the President to oversee the Act; but what were to become the Act's most visible and controversial provisions were those mandating the preparation by federal agencies of the now familiar environmental impact statements for every action having significant impact upon the quality of the physical and human environment. The impact statement was designed to serve as a strategic technique for introducing an environmental bias into agency decision-making where none had previously existed. Assuming that decisions are predicated on information, the intent of the technique was to require agencies to generate new information to be considered along with the technical and economic information traditionally taken into account in their planning and decision-making processes.⁵ While the impact statement requirement, when not totally ignored, initially took on the function of justifying decisions which had already been reached without consideration of environmental consequences, environmental groups seized the opportunity of using the courts to force agencies to strictly comply with the Act's procedural requirements. Cooperation from the federal courts,⁶ whose decisions were incorporated by CEQ into guidelines for preparing statements, produced a reaction by agencies which resulted in massive new amounts of unforeseen paper work and the transformation of the impact statement from an essentially justificatory and public relations document to an essentially legal document. Although this development did result in the occasional

delaying of construction projects, the issues involved were essentially procedural in character and ad hoc in application, without resulting in the substantive fulfillment of NEPA's goal: to genuinely integrate environmental considerations into substantive areas of federal agency decision-making.

The extent to which the intent of NEPA has been effectively realized and the extent to which the environmental impact statement requirements have promoted the Act's intent have been the subject of considerable evaluation. In the first part of this Bulletin a selected number of evaluations which we regard as representative of the prevailing academic and official viewpoints on NEPA are reviewed and found wanting. More specifically, we find that the criteria offered as standards for measuring the extent to which agencies have moved from procedural to substantive compliance rarely go beyond the status of more strict standards of procedural compliance. Consequently, NEPA's impact statement process is viewed as an end in itself rather than as a means to the end of promoting more environmentally sensitive decision-making in those policy areas where such considerations have been ignored. The recommendations which have been generated from the prevailing approach for improving the implementation of NEPA have failed to come to grips with the gap between procedural compliance and substantive policy performance and more often than not succeed only in begging the question.

Following our review of some of the pertinent literature, an alternative approach to evaluating the effect of the impact statement process upon decision-making is offered. In this approach the emphasis is placed upon the opportunities and limitations which the process

presents to the actors who are involved in the making of substantive decisions. How the requirement to prepare impact statements is actually used by agencies, private sector applicants for whose projects the statements are often prepared, environmentalists, and others is given central importance in this approach rather than the relative abilities of agencies to comply formally with formal guidelines. Finally, the alternative approach is applied to a case study of the preparation of an environmental impact statement by the Bureau of Land Management (BLM) for the proposed Kaiparowits power project in southern Utah. The project, temporarily abandoned in April 1976, was the most important component of WEST's vision for the future development of the region and was the first of the consortium's projects to be fully subjected to the requirements of NEPA.

A CRITIQUE OF THE PREVAILING VIEW OF NEPA'S IMPLEMENTATION

The National Environmental Policy Act of 1969 was the federal government's first comprehensive statement of a commitment to environmental quality as a priority item on the national agenda. A major goal of the Act was to encourage more environmentally sensitive decision-making within federal agencies--"to overhaul fundamentally an incremental decision-making process in which the pursuit of narrow economic goals had obscured the need to weigh environmental impact."⁷ Prior to the Act's passage a Senate report noted that because of the

failure to formulate a comprehensive national policy, environmental decision making largely continues to proceed as it has in the past. Policy is established by default and inaction. Environmental problems are only dealt with

when they reach crisis proportions. Public desires and aspirations are seldom consulted. Important decisions concerning the use and the shape of man's future environment continue to be made in small but steady increments which perpetuate rather than avoid the recognized mistakes of previous decades.⁸

The principal technique for accomplishing the goal of improved decision-making was the environmental impact statement requirements of Section 102(2)(C) of NEPA. The impact statement should be understood as the documenting of a process to be performed in a manner "which will insure that presently unquantified environmental amenities and values may be given appropriate consideration in decision-making along with economic and technical considerations."⁹

An assumption underlying the impact statement technique is that decision-making is a function of information and that the statement should serve as a strategic mechanism for provoking the gathering of new information and for opening new information channels to agency decision-making processes. However, the decision to collect new information is a necessary but not a sufficient condition for both altering the variables considered by decision-makers and changing the substance of decisions which are made.¹⁰

The adequacy of Section 102(2)(C) as a means for achieving the substantive decision-making goals of the Act has received a great deal of attention from policy analysts in both academia and the government. In one of the earliest systematic attempts to evaluate agency implementation of NEPA, Richard N. L. Andrews compared the responses of four agencies in terms of funds and personnel committed; the promulgation of procedural guidelines;

the quantity and quality of statements prepared; the extent and type of contact with the public; the number of proposals subject to NEPA which were revised, postponed, or cancelled; proposals for which impact statements were not prepared; and the extent of opposition experienced from the public, the courts, and other agencies.¹¹ While a number of differences were found in the particulars of procedural compliance, in general Andrews found initial compliance to be sluggish, incremental, and reactive mainly to judicial review; that statements were of poor quality; and that any substantive changes attributable to NEPA were of marginal significance.¹² "In summary," Andrews concluded, "NEPA appears to be a crude instrument for amelioration of the problems that gave rise to it."¹³

This rather pessimistic conclusion is not surprising, if for no other reason than the fact it was based upon only the first few years of experience with the Act. Organizational responses to new agenda items are typically slow in any area and especially so when agencies are left with considerable discretion, as they were with NEPA, about how to respond to a sweeping, highly ambiguous, and potentially innovative requirement. In the words of Victor Thompson "[t]he bureaucratic orientation is conservative. Novel solutions, using resources in a new way, are likely to appear threatening." Furthermore, bureaucracies are typically concerned more with internal politics--with "the internal distribution of power and status"--than with the accomplishment of policy goals.¹⁴ The capacity of decision-makers to widen the scope of considerations with which they deal will be developed, if at all, only gradually and at a rate dependent on the perceived effects of change upon existing policies, programs, and clientele.¹⁵

The relationship of procedural compliance and the attainment of substantive policy goals is difficult to fathom. How agendas are changed, or how, in Arrow's terminology, experimental decisions to collect information eventually become transformed into terminal decisions which result in substantively changing concrete actions is an issue central to any attempted assessment of the adequacy of environmental impact statements for achieving the goals of NEPA.¹⁶ A four-phase typology developed by Allan Wichelman represents one attempt to provide a classification of agencies according to their level of compliance with NEPA as well as to describe the process of development from procedural to substantive implementation.¹⁷ The first, or "interpretive," phase was that initial period of greatest uncertainty during which agencies proceeded without the guidance of CEQ or court decisions. At best only minimal efforts to comply were undertaken by most agencies. Total evasion of the requirements was, however, only a short-lived strategy for those agencies adopting it once the costs of litigation in the form of delayed projects and dissatisfied constituents became apparent. Many of the impact statements for important actions which were prepared in this early phase were often for projects planned prior to the passage of NEPA and in some cases, such as the Navajo Generating Station, for projects which were already under construction. These early documents were typically written as justifications and rationalizations for decisions which had been previously made without adequate consideration of environmental consequences.

Successful use of the courts by environmentalists and the incorporation of court decisions into CEQ guidelines had the effect of forcing agencies to at least formally comply by adopting certain procedural, structural, and staffing changes, thus entering the second phase of "formal"

compliance. During this phase agencies established new organizational units with duties to prepare and review impact statements. These units were typically not plugged into decision-making processes but rather were developed largely to protect agencies from the threats of litigation and delay. The creation of new organizational units is, however, credited by Wichelman with having played a key role in promoting formal compliance and, in combination with aggressive external oversight, with initiating a learning process which slowly altered attitudes in a number of agencies. The result of such changes moved some agencies into a third "integrated planning" phase characterized by some substantive decision-making effects, albeit only incremental and project-specific ones. These offices, in Wichelman's view, "became increasingly adroit at internal agency politicking" during the "integrated planning" phase and, through such activities as developing training programs, formulating guidelines, reviewing new proposals, coordinating agency environmental assessments, and lobbying agency leadership, have "become increasingly significant brokers in agency decision-making."¹⁸

The creation of new organizational units is, of course, a fairly typical bureaucratic response to facing the uncertainty of new information. If the threat of innovation cannot be totally blocked by ignoring it, it "can at least be segregated and eventually blocked from the communication system if necessary."¹⁹ Victor Thompson has explained this type of approach in the following way:

Segregating such activities prevents them from affecting the status-quo to any great extent. The organization does not have to change. It can merely add another unit and thus 'cover' the subject. The...unit is often an isolation ward where creative people are kept until they become domesticated

and can be put to work servicing the needs of the units already on the scene--that is, servicing the status-quo.²⁰

This general observation is particularly pertinent to the specific case of the implementation of NEPA. Despite Wichelman's optimism, the success of environmental offices specially created to deal with NEPA has not been due to their ability to transform decision-making in a positive sense but to their ability to stave off litigation, delay, and other threats to ongoing decision-making processes. Thompson's observation suggests that from the point of view of substantive decision-making, the success and usefulness of these new units are measured by the extent to which they "cover the subject," as defined by the courts, and shut off opportunities for aggressive external actors to intervene and disturb business-as-usual. This typical form of bureaucratic resistance to innovation may account for why agencies have not progressed beyond the "integrated planning" phase to the full achievement of NEPA's substantive goals. Wichelman cites the absence of pressure from the courts, unsympathetic leadership within the federal bureaucracy, and antagonism or lack of interest on the part of Congress and the White House as key reasons for the failure of agencies to achieve the fourth, and culminating, "programmatic" phase.²¹

Wichelman means for his typology to capture a developmental process of agency implementation in which formal procedures and substantive change are highly interrelated. This process as it is conceived by Wichelman, and implicitly accepted by CEQ and other observers of the interrelationship of the procedure and substance of NEPA, is largely teleological. The development of implementation is assumed to be cumulative (though not necessarily continual; retrogression is possible) and moving toward an assumed end of achieving

NEPA's goal of fundamentally transforming decision-making --an end which is found to be immanent in the preceding phases of procedural compliance. The goal of fully substantive and comprehensive reordering of the agenda in the federal bureaucracy (programmatic phase) is seen as anticipated by and emerging from the formal procedural implementation of the Act with its characteristics of procedural rulings by the courts, the establishment of statement preparation guidelines, the founding and growth of new environmental offices to deal with NEPA, and the participation of environmentalists interested in NEPA as a means for furthering their goals. From the most simple beginnings, this view holds, there develops a dynamic learning process, and with each stage of implementation a closer approximation of NEPA's decision-making goals is achieved. At some point, it is argued, agency leadership and staff come to recognize the positive benefits of environmental impact information, and there appears to spring forth a qualitatively different approach to decision-making. In this view the genesis of substantive decision-making is found within the procedural and structural responses of agencies. This is an assumption, untenable at best, which must be proven, not just assumed. The prevailing view analyzes, interprets, and explains procedural and substantive responses of agencies in terms of their assumed contribution to and approximation of the desired goal. But the desired end which was to be integrated into existing decision-making agendas and goals may not actually be the substantive end which NEPA's implementation has served or will serve. Typically, the criteria employed by many NEPA analysts to determine the passage of NEPA from earlier procedural stages to substantive stages do not reveal any qualitative differences between the procedural techniques

employed by agencies and the substantive attainment of the Act's goal.²²

Despite the rather amorphous character of this transition from early procedural phases to substantive phases, its supposed occurrence has not escaped the notice of the CEQ. Nearly four years ago the Council announced that the implementation of the Act had developed to a stage beyond mere procedural compliance in which environmental considerations were becoming an integral part of agency decision-making.²³ But a recent report by the Council which attempts a review and analysis of the use by federal agencies of the environmental impact statement to attain NEPA's goals concluded that at best the positive decision-making influence of the impact statement is uncertain. Are decision-makers in the agencies utilizing environmental information? While environmental impact documents may be presented to decision-makers the requisite understanding of the information often goes no further than "the middle and lower levels in an agency," or the information is diluted when it does go further.²⁴ Perhaps examples of actions which have been modified, delayed, or abandoned are evidence of "significant influence of the EIS process on project planning and decision-making"?²⁵ Other explanations seem more likely, and CEQ itself notes that

The impact of the National Environmental Policy Act is sometimes elusive, and it is often difficult or even impossible to credit NEPA for specific agency actions. And from time to time, NEPA's goals may be overshadowed by economic and social problems.²⁶

In addition to being unable to determine the substantive beneficial value of NEPA to agency decision-making, CEQ also concludes that "[i]t may not be possible to determine the real costs of federal compliance with NEPA"

because it is difficult to separate NEPA activities from other activities in which agencies engage, and the methods agencies use to determine the costs are not consistent.²⁷

Unable to measure the substantive costs and benefits of NEPA, CEQ retreats to less elusive and more formal indicators in evaluating the Act's effectiveness. The analysis presented in the bulk of the annual report is confined to the consideration of such indicators as the content of the statements, organizational structure and relationships which have arisen in response to the demands of statement preparation and review, and the time required to prepare statements. While these tell us something about what agencies are doing that can be measured and appraised against formal guidelines and judicial decisions, they tell us next to nothing about attaining the decision-making goals of NEPA. To rely on these as measures of the substantive impact of the procedural requirements leads to confusion of means and ends (i.e., of the impact statement preparation process with the decision-making process) and to inflated expectations for the efficacy of the implementation of Section 102(2)(C).

The reliance on formal criteria of evaluation is carried through to the recommendations generated by the Council for improving the use of impact statements. The Council's recommendations urge agencies to eliminate inefficiencies through, among other things, improved training programs, better cost accounting procedures, tighter management control over impact statement preparation, inter-agency cooperation, stricter definitions of the appropriate scope and content of analysis contained in statements, and shorter statements. In sum, the content and tone of the recommendations seek to refine and promote further formalization of NEPA-related procedures without conveying any

clear idea of how their adoption would promote the transformation of agency decisions in any substantive policy area.

Anthony Downs' generalization that when bureaucracies "have no direct measure of the value of their outputs" and "[w]hen there is no clear linkage between the nature of an action and its value or ultimate end, pressure arises for the development of formal rules to help individuals decide their behavior"²⁸ is of particular interest, in light of CEQ's assessment, for considering the future role of the impact statement in substantive policy areas such as energy. Some NEPA observers have bemoaned what they find to be a preoccupation among the courts, CEQ, the federal bureaucracy, and public participants with procedural implementation of the impact statement requirement which ignores the substantive decision-making goals of the Act. Andrews, for example, addressed this point in noting that

the fascination of both administrative agencies and courts with NEPA's procedural requirements has so far neglected, if not obscured, the policy purposes which the procedures were intended to serve.

As a result, there has been a growing gap between the usage of environmental statements as new documents accompanying routine forms of agency action--dams, nuclear reactor licenses, highway links, etc.--and the increasingly compelling need for an environmental perspective in truly major federal policy decisions, such as those setting the fundamental directions for food and energy use, resource consumption, pollution, and population.²⁹

Although Andrews credits the use of procedures by citizen groups, especially through the courts, with forcing NEPA's implementation as far as it has gone, he warns that "this grassroots approach has also fostered a serious danger

of trivializing the more fundamental purposes of the law, limiting its application to environmentally controversial actions rather than to those causing the most significant impacts." Court challenges by environmentalists may delay individual projects, but they will "not change fundamental policies and priorities...until they are able to effectively challenge the policies upon which those proposals are based, such as the Project Independence Blueprint. The delays may be useful or even necessary as tactics, but they are doomed unless they are embedded in broader strategies of effective challenge to basic policy directions."³⁰

Can the impact statement become an instrument for altering policies and priorities in any fundamental sense? Programmatic impact statements have been touted by CEQ and other NEPA advocates as one means of incorporating a broader strategy of environmental challenge to federal agency decision-making. It is argued that by broadening the scope of the impact statement, both in terms of subject matter and geographical area, and by encouraging the performance of environmental analysis at the earliest stages of planning, the substantive goals of the Act will be appreciably furthered. Such a proposal, however, still does not escape the procedural-substantive gap, but seeks only to formalize and institutionalize for more efficient management of the uncertainties and challenges which may interfere with the normal processes of substantive decision-making. Even if such a technique were effective in communicating environmental information to decision-makers, the capacity of the sciences to predict consequences of the scope that would be required would fall nearly as short as would the capabilities of federal agencies to assimilate it. Even the limited knowledge that presently exists is not fully integrated. Furthermore, in the absence of, for example, a

comprehensive and coherent energy policy, what sense does it make to speak of integrating a comprehensive and coherent environmental policy into energy decision-making?

Notes one astute observer of NEPA:

It is ever so tempting to believe, either when proposing such analysis as a task for public agencies to perform or in assessing their response to a requirement that they do so, that the essential problems are problems of technique. Much as some attorneys, judges, and academic observers would like us to cling to this belief, the fact is that policy impact analysis has implications for who has the power, to make what decisions, in variable political and administrative contexts with respect to environmental issues. Students of public policy have so far made only limited progress in unraveling these implications and assessing their significance for a more general understanding of environmental politics.³¹

To assume that NEPA's goals will be served by the further formalization of procedural requirements overlooks both other more typical organizational responses to procedural changes and the likelihood that powerful participants who dominate traditional patterns of policy-making possess the resources to take advantage of and dominate new procedural requirements. We suggest that goals other than those of NEPA may in fact be more likely to benefit from the procedural technique of the environmental impact statement. Consider for example Murray Edelman's observation that while formal administrative procedures may take

the form of elaborate due process, involving complicated and drawn out inspection both in the agency's offices and in the formal hearings...the screening apparatus through which decisional premises must pass is supplied by the organizational setting and can be counted on to grind out its foreordained result regardless of the awesomeness of the procedures. The latter serve quite another function: not so much to build rational calculations of the

consequences of alternative decisions, as to legitimize what is finally announced by emphasizing the care with which it is related to the agency's symbolic objective. Occasional decisions slapping the industry but not altering the major trend further bolster the symbolism, for the commissioners themselves as much as for the mass public.³²

Furthermore,

The administrative system as symbol and ritual, thus serves as legitimizer of elite objectives, as reassurance against threats, and sometimes as catalyst of symbiotic ties between adversaries. It should not be surprising that we find these larger social functions of the administrative system mirrored inside each of the agencies as well, in gathering and choice of premises upon which decisions are based.³³

Attempts to analyze the effect of the impact statement on policy are further complicated in those instances when agencies prepare statements on the impacts of private sector initiatives, such as the planning and construction of powerplants. In such instances agencies must contend with the fact that an important center of decision-making rests in the private sector, and often with industries which are important agency clients.

An important class of actions for which the primary decision-making takes place in the private sector and with which severe environmental impacts are associated comprises those undertaken in the energy sector. In applying NEPA to energy projects, agencies are confronted with the fact that major planning, engineering, economic, and other basic and technical decisions are largely the preserve of the energy sector and are made prior to the subjection of any proposal to the impact statement process. One of the most visible of the energy industries in terms of both the function it performs and the environmental impact of its activities is the electric utility industry. While the industry is perhaps the energy sector's most extensively regulated, the

policy role assumed by the government has largely sought to rationalize the industry's development in keeping with both a definition of the "public interest" as an increasingly abundant supply of electricity and with the industry's "entrepreneurial outlook" on economic and technological efficiency.³⁴ Assisted by government policies based on parallel definitions of the "public interest" and the interests of a "natural monopoly" and by questionable assumptions about the benefits of achieving economies of scale and promoting concentrations of capital, the expansive development of the electric utility industry has produced increasingly greater adverse environmental impacts. Long-term trends and traditional practices of the industry have relegated environmental effects to be considered as external costs and have limited the extent to which environmental considerations can or will be taken into account on the industry's predominantly technologic and economic agenda. In deliberations over such agenda items as projected demand, the generating capacity and type of facility to meet that demand, the location of the generation and transmission facilities, and the means for raising capital required to finance expansion, the important options traditionally considered by company decision-makers are primarily limited by and responsive to conditions in the fuel industries, equipment manufacturing industries, and capital markets. Since the middle of the decade of the 1960s, great uncertainties have been spreading throughout all of these components of the industry's agenda, as electric utilities have borne the brunt of economic stagnation, inflation, and the fuel crisis.

Nearly a century of developments in the economic and technological character of the industry has not inclined electric utilities substantially to integrate environmental

considerations into their decision-making. When confronted with the information requirements of NEPA, utility company decision-makers have been less likely to ask themselves how they might integrate environmental aspects on par with economic and technological factors than they are to ask: What is this extra thing we have to do to obtain a permit from the federal government? For electric utility companies accustomed to dominating the supply of information relied upon by the government agencies which regulate the industry, the NEPA impact statement process has been at worst another bureaucratic requirement to which they have had to resign themselves, and at best an opportunity to promote and legitimize their projects. In some instances environmental requirements have served as a handy scapegoat for other more basic contradictions in the industry.

Not surprisingly, the response of the electric utility industry to NEPA and the impact statement requirement closely paralleled that of the federal agencies. During the initial years of greatest uncertainty, compliance with the Act was not taken seriously and was regarded as part of an environmental fad that would soon blow over. Although it presented a temporary inconvenience, it was largely dealt with as a public relations task. However, as NEPA evolved and litigation became a dominant feature, the information requirements of federal agencies and the electric power industry increased in both their scope and sophistication. While the promotional aspect of the industry's approach to the impact statement persists, it has had to adapt to counter the threats of litigation by environmentalists who have challenged impact statements on procedural grounds. This adaptation chiefly took the tactical form of flooding agencies with volumes of detailed studies and reports. Companies have also increased the personnel in their environmental

affairs offices, adding engineers, natural scientists, and environmental analysts to the original small staffs of public relations specialists and landscape architects. The organizational function of these new units has been less that of informing and modifying internal decision-making than of acting as company liaison to governmental agencies, and managing the transferal of information from company-hired consultants to governmental agencies. The most noteworthy effect of this evolution has not been the transformation of decision-making but rather the spawning of thousands of environmental consultants and environmental lawyers who have assisted the companies in their domination of NEPA's requirements.

The CEQ, among others, has recognized the threat of private-sector dominance as a difficulty in implementing the Act.³⁵ But while concern is expressed over private-sector dominance of the preparation of impact statements, the problem as it is recognized generally amounts to the uncertainty on the part of the private-sector applicant as to what each agency requires and on the part of agencies as to how to assess and use the information provided by applicants. The problem has not been defined as how the impact statement might alter decision-making external, or even internal, to agencies. The response by agencies to this type of uncertain situation has been addressed by one student of bureaucracy in the following way:

If no formalized rules governed such decisions, the bureau's responses to similar conditions might be quite different for different clients. Such 'personally discriminatory' behavior might cause consternation among the clients of public or quasi-public agencies, who expect to receive 'equal treatment under the law.' Therefore, strong pressure exists in such agencies for

the establishment of rules governing decisions concerning clients, so that reasonably consistent responses will arise and no charges of discrimination or favoritism will be made.³⁶

The recommendations offered by CEQ for dealing with the problem of private-sector dominance are quite in keeping with this observation. Agencies are encouraged to promulgate general rules establishing the scope of analysis and the alternatives to be addressed, and to require applicants to hire consultants to work closely with the agency in preparing the statement.³⁷ How the adoption of these recommendations will promote objectivity and reduce private-sector dominance of NEPA, not to mention the furtherance of NEPA's goals, is unclear.

AN ALTERNATIVE APPROACH

The critique offered in the foregoing section suggests the need for an alternative approach to explaining the role of NEPA in major substantive policy areas, such as energy. We propose that the environmental impact statement is less an instrument for communicating information to decision-makers, who will in turn reshape their outlook and improve their decisions, than it is an instrument which political actors will seek to shape and manage for their own purposes. That is, the preparation and review of impact statements are less of an influence on the decision-making process than they are influenced and shaped by the needs and aspirations of political actors and decision-makers.

Perhaps, then, the elusiveness of an answer to the question posed by CEQ of how federal agencies use the impact statement requirement to meet the goals of NEPA rests with the formulation of the question and its assumptions. A more fruitful evaluation of the impact statement process, our

critique suggests, should begin by reframing the question. Rather than ask to what extent it assists in realizing the goals of the Act, we should instead ask what opportunities it presents to interested actors and how they actually capitalized on them. As an alternative to viewing the Act as a set of new policy goals, we propose a more realistic, though less inspiring, view of NEPA as the imposition of new rules into a complex decision-making process--rules which have provided actors with the opportunity to participate in the generation and compilation of environmental information but which cannot thereby be assumed to have altered ongoing patterns of decision-making.

In assessing NEPA's impact upon substantive areas of decision-making, questions such as the following need to be addressed:

- o How have the stakes--what is to be gained or lost--which various participants have in the substance of public policy decisions affected their response to the requirements of NEPA?
- o How has the marshalling of resources--legal authority, scientific expertise, public support, etc.--by participants in the NEPA process served to promote goals other than improved environmental decision-making?
- o Are the other goals pursued--such as organizational maintenance and aggrandizement, and the legitimizing of development-oriented decisions--compatible with the substantive goals of NEPA?
- o What are the implications of changes in the rules which require the expenditure of additional resources for the relative influence of actors in decision-making?

In the remainder of this Bulletin we apply this approach in examining the opportunities and burdens presented to some

of the central actors in the recent preparation of the impact statement for one of the most symbolically and materially important energy projects in the Southwest: the Kaiparowits power project. While the barriers to generalizing from one case cannot be overcome it is hoped that it will at least illustrate the potential utility of an alternative approach for evaluating NEPA and perhaps inspire refinements and further applications.

THE KAIPAROWITS POWER PROJECT

The Kaiparowits power project (a proposal to build the world's largest coal-fired electric generating plant, in southern Utah, and also involving a new underground coal mine and coal-haul railway, a limestone quarry, a new town, and the construction of transmission lines to the major load centers in Arizona and Southern California) was considered to be the most important component in the second phase of development of electric power production in the Four Corners region. Kaiparowits was only one project in a major effort by mining concerns and electric utility companies to exploit the region's extensive coal and limited water resources to meet the growing demand for electric power in both Southern California and the rapidly urbanizing areas of the Southwest.

These plans for the region have since met with the emergence of a nationwide public awareness of problems of environmental quality and with the development of important new areas of government regulatory activity. Major new policy and institutional commitments on the part of the federal government, most notably manifested in the amendments to the Clean Air Act and the Federal Water Pollution Control Act, the passing of NEPA, as well as the creation of the Environmental Protection Agency and the Council on Environmental

Quality, paralleled the rising public concern for environmental quality.

In the Four Corners area the initial focus of public attention centered on the first of the plants to begin operation, the Four Corners Power Plant in northwestern New Mexico. The plant was considered a business success but its deleterious effects on air quality and the continuation of plans for construction of still more large coal-fired plants in the region made it an obvious target for attack by a growing segment of environmentalists and public officials. By May 1970 a series of field hearings was conducted by the Senate Committee on Interior and Insular Affairs on the problems of electric power production in the Southwest. The hearings highlighted the problems as a conflict, regional in scope, between the demands of environmental quality and the demands of economic development.³⁸

One year later, Secretary of the Interior Rogers Morton initiated "a comprehensive examination of the development of electric power in the Southwest United States."³⁹ A federal task force, whose entire membership was drawn from the Department of the Interior, was established to oversee the preparation of what became known as the Southwest Energy Study (SWES). The task force was directed to undertake a detailed study of the entire Colorado River Basin, focusing on the region's natural resources, economic needs, social and cultural factors, and aesthetic qualities; its long-term electric power development and effects on both the human and physical aspects of environmental quality; and the available alternatives for attaining optimum development with minimal adverse environmental impact. The Kaiparowits proposal, more so than any other of the region's electric power projects, was closely related to the SWES chiefly because it was the only specific proposal which

could be immediately and concretely influenced by the study. All other projects were either already in operation, under construction, or planned for the distant future.

On June 13, 1973, Secretary Morton endorsed the final SWES report and its recommendation against the Kaiparowits project.⁴⁰ The decision hit the utility companies cold. A vice president from Southern California Edison Co., a member of the consortium of power companies who were involved in the Kaiparowits project, immediately rushed a copy of a new environmental study to the Department of the Interior. Participating agencies in the SWES spent the remainder of the summer and into the fall reviewing the new study and their judgments remained by and large negative. The National Park Service saw "no reasons to alter the Departmental stand of opposition to the construction of the Kaiparowits power plant," and BLM found it "completely unacceptable and could not be used to write an environmental impact statement." The National Oceanic and Atmospheric Administration (NOAA) and the Environmental Protection Agency (EPA) also found hydrological and meteorological aspects of the report to be inadequate. Unable to submit an acceptable environmental report, the companies were assisted by the SWES participants in preparing yet another one. Meanwhile Secretary Morton was feeling pressure from Utah's Senator Moss, Representatives McKay and Owens, and Governor Rampton to accept the companies' report. In other efforts, company officials, hoping to go over Morton's head and obtain a reversal from the President, sought assistance from "energy czar" John Love and presidential energy consultant Charles DiBona. By the end of the year the new siting study was completed and, though still unacceptable to environmental opponents both within

and outside of the government, Secretary Morton found it sufficient to overcome his objections. Thus, the way was clear for the preparation of an environmental impact statement to begin.

In January 1974 the Utah State Director of BLM was assigned the responsibility for preparing the impact statement. The organization of the effort began with the formation of an interdisciplinary team comprising personnel from seven other federal agencies, few, if any, of whom had any previous experience with a large interdisciplinary effort. In preparing the document BLM was faced with two basic opportunities. First, recognizing that "DOI holds that the environmental impact statement is not the decision making document" but is prepared primarily for public consumption,⁴² and that "the people who do these EISs may not 'speak for' the agency,"⁴³ the team could treat Secretary Morton's initial rejection of the project as a sop to environmentalists and could establish its primary objective as no more than that of touching all the procedural bases, completing the document as quickly as possible, and clearing the way for the final, presumably favorable, decision. In general, this option would not reject the approach of preparing the statement in a manner that would promote the companies' project and would serve as window dressing for a decision assumed to have already been made. Second, the BLM could adopt a tougher and less-resigned stance, asserting its independence of the companies, and maintaining a consistent follow-through of earlier Department of the Interior decisions on the project.

In the early period of organizing the team and establishing its objectives the first approach predominated. The team leaders had resigned themselves to the inevitability of litigation no matter what they did and approached

their task as one to be completed with the least possible amount of pain. In the first task undertaken by the team, the establishment of the statement's scope, a "project" or "site specific" statement⁴⁴ was opted for on the grounds that SWES constituted a de facto statement of regional scope and that to prepare a new statement of that magnitude would take as long as three years to complete. By limiting the scope of impact to be studied, the state office conformed with the urgings of the Washington office to complete the statement as quickly as possible. It illustrated their reluctance to "make waves" or to challenge the fact that "existing programs often 'lock-in' the decisions that control individual projects."⁴⁵ It also limited assessment of impact to an area whose population overwhelmingly and vociferously supported the project.⁴⁶

Besides narrowing the scope of their task the statement writers felt obliged to accept uncritically information submitted by the applicants. Caught in a bind in trying to gather good first-hand information, their attitude was that the companies' capabilities and experience were far greater than their own and to attempt to counter that would be an exercise in futility.⁴⁷

A challenge to these initial assumptions and attitudes of the state office soon issued from quarters which desired the office to assert itself over the applicants. Personnel from the Office of the Solicitor, the Department of the Interior's Environmental Affairs staff, and the Bureau's Office of Environmental Project Review met with the team early in the preparation of the draft statement and found "they had allowed themselves to be mousetrapped" by the companies and were poorly organized.⁴⁸ An official from Environmental Affairs felt the field offices were too closely tied with local interests and "talk and act more like local than federal

officials." He felt they were thus unable to appreciate regional and national concerns and therefore needed tighter, more centralized direction.⁴⁹

After overcoming the affront of "front office" intervention, the review team came to realize that the statement should present all the facts and uncertainties concerning the environmental aspects of the project to the Secretary of the Interior. Additionally, even though the team could not completely overcome their dependence upon information submitted by the applicants, it was decided that the companies not be allowed to participate in the writing of the statement, nor would they be allowed to read or see any of it during its preparation.⁵⁰ During the preparation of the statement the team shed much of its former acquiescent approach and became more discriminating in reviewing company information and more persistent in requesting improved submittals.

Although intervention from Washington may not have been warmly received, an even greater affront to the state office team may have come from the applicants themselves. The feeling was expressed that the companies came into the project thinking they had the Department and the Bureau "under their thumb" and at the completion of the draft statement satisfaction it was felt that the document and its preparation showed otherwise.⁵¹ While the impact statement may have been used by the state office as an opportunity to demonstrate symbolically its independence from the companies, the preparation of the statement nevertheless remained under strict supervision by the Bureau's Environmental Affairs and the Department's Environmental Project Review staffs. It was largely their review of information submitted by the applicants that resulted in judgments of inadequacy and requests for fuller compliance.

For the Bureau's Environmental Affairs staff the preparation of the statement was an opportunity to improve its station within the Bureau. The staff was created in early 1975 for the purpose of monitoring and exercising procedural control of the preparation of impact statements. Its other functions include assessing personnel needs for the impact statement process and participating in the formulation of agency impact statement procedures. Whereas control of statement preparation by BLM was formerly done in a piece-meal manner in Washington, the controversial Kaiparowits proposal and its bulky and detailed impact statement provided the opportunity to call attention to the inadequate number of personnel and other resources in Washington devoted to the reviewing and effective monitoring of the impact statement process. The Kaiparowits statement provided the staff with evidence for the claim that greater resources were needed to carry out its function and that they would not contribute to creating just another level of bureaucratic dead weight. Kaiparowits provided the catalyst for the acquisition of a sophisticated information storage and retrieval system to rationalize and expedite the communication of information between field offices and Washington, and the corollary development of a tighter procedural control system. The statement preparation also served as the initial model case for testing and implementing the computerized information system.⁵²

A passive and resigned approach initially adopted by the inexperienced and dependent state office toward preparing a statement for as controversial a project as Kaiparowits provided the opportunity for NEPA-spawned units in the Bureau and Department to improve upon the status of their uncertain existence within their parent organizations.

To take advantage of this opportunity required the cooperation of the field office preparation team and a vigorous approach to reviewing and judging company-supplied information. Information provided on the description of the project, the limestone quarry and coal mine proposals, environmental impacts, the power market, and transmission routes were judged to be either simplistic, limited, difficult to follow, indicative of a lack of firm engineering planning, or otherwise inadequate, and resubmittals were required. Officials in the field office stated that they trusted neither the academic consultants nor company-employed environmental specialists who were involved in the effort, having found them overly biased at best and incompetent at worst. The information which those sources supplied was, in one official's view, "little more than inventories of flora and fauna and with little or no useful analysis."⁵³

From the point of view of the utility company applicants, BLM's assertiveness had "been a real bother" and was partially to blame for continual delays which were increasing the cost of the project.⁵⁴ But from the point of view of one official from the Department's Office of Environmental Project Review staff, the companies were their own worst enemy and were responsible for delaying the impact statement's preparation as was the Department. Southern California Edison was regarded as the most difficult applicant the Department had ever worked with.⁵⁵

Illustrative of Southern California Edison's intransigence was its insistence on maintaining plans to route one of the transmission lines through Indian reservation land, the ownership of which was disputed between the Navajo and Hopi Tribes. Only two months into the statement's preparation the companies were informed by the Bureau of

Indian Affairs that they would not be able to cross the Navajo Reservation, and the Department of the Interior urged the company to alter its plans and submit appropriate information for inclusion in the statement. Yet despite persistent requests to submit new information on the preferred alternatives for the transmission line, Southern California Edison would not relent until a full year after the commencement of the impact statement's preparation, setting back nearly four months the already long-delayed completion of the draft statement. When finally the company agreed to reevaluate its stand it was not due to environmental considerations of the demands of the Bureau or Department, nor, presumably, of the Bureau of Indian Affairs, but rather to the uncertainties of the Indian land dispute and the threat of the Navajo Tribe's terms including "land costs approaching \$60,000 per mile, the free delivery of a specified number of megawatts of power, an airplane, fencing of boundaries, construction of bridges and roads, etc."⁵⁶

Southern California Edison Company, which was chiefly responsible for managing the applicants' involvement in the impact statement, has one of the leading environmental reputations in the industry. Many of its capabilities for organizational response to environmental issues were developed prior to NEPA, in part due to the relative strictness of California's air pollution regulations (perhaps it is ironic that the decision to build powerplants outside of California, away from heavily populated areas, was itself in part a response to environmental pressures and regulations). The company's Environmental Planning Department is staffed by over twenty persons representing a wide range of disciplines including various engineering specialties, geography, geology, archaeology,

biology, and oceanography. Its experience and sophistication in the environmental field and with NEPA far surpassed that of the BLM's statement preparation team. Having been placed on the defensive by Secretary Morton's initial rejection of the companies' preferred site based on the SWES, the applicants surely expected to regain the offensive through their accustomed domination of the impact statement process. Instead, the companies found BLM to be "overprotective" of the statement and overly aggressive in their exclusion of the applicants from their accustomed role in the process.⁵⁷ In response, the companies resorted to tactics such as withholding and delaying requested information, being delinquent in payment of BLM's bill for statement preparation, publishing an alternative summary of the draft statement, and publishing a misleading site analysis report without acknowledging authorship, implying a relationship to BLM and the impact statement. While they had been reluctant to supply BLM with information during the preparation of the draft, the companies chose to flood BLM with 250 pages of comments once the draft was issued.

Besides being confronted with the unique, and to them bothersome, situation of not dominating the impact statement preparation process, the companies were faced with far more serious difficulties and uncertainties which in the 1960s began generally to plague the entire industry. Uncertainty about growth projections upon which the decision to build the plant was based, rapidly increasing costs⁵⁸ and a shortage of capital, and a lack of rate relief, among other things, led first to the withdrawal from the project of one of the four participants. Further uncertainties about future congressional intent to amend the Clean Air Act added to these difficulties and led to the

withdrawal of two other participants and the indefinite postponement of the project. In the words of Southern California Edison Executive Vice President William R. Gould, "[f]inally it just crossed over the line of economic feasibility."

In addition to the Bureau of Land Management, the Department of the Interior, and the utility companies, a third official actor of importance in the Kaiparowits case for whom the impact statement provided significant opportunities was the Environmental Protection Agency. The EPA has the responsibility under NEPA to review all impact statements and the authority under the Clean Air Act to pass judgment on the environmental merits of proposals and to exercise the option of referring unsatisfactory proposals to CEQ.⁵⁹ The agency's involvement with Kaiparowits originated with its participation in the SWES as lead agency for the water and air pollution reports. In its participation in the study the agency was faced with a number of obstacles, all of which were to some extent a function of the Department of the Interior's domination of the study, its greater experience, and its established position within the federal bureaucracy relative to that of the (then) newly established EPA. The experience gained by EPA in dealing with and overcoming these obstacles contributed to increasing the new agency's expertise in scientific areas and in the area of interagency politics.

The survival and success of a major new agency such as EPA demands the rapid buildup of expertise and other resources which will enable the organization to assert its interests and to exercise fully its responsibilities. To survive successfully the initial period of organizational growth often gives rise to zealous, sometimes over-zealous

behavior by agency personnel. EPA's handling of the review of the Trans-Alaska pipeline impact statement and the exercising of its option to refer the project to CEQ was one such example of over-zealousness which contributed to an adversary relationship with the Department of the Interior. EPA's public criticism of the Department-sponsored project and its recommendation that construction be delayed "outraged agency officials, who complained of criticism by this new and inexperienced agency."⁶⁰ EPA's zealousness in this case was not productively directed, contributing to an early setback both in the performance of its NEPA and Section 309 review responsibilities and in its ability to exert effective influence in the SWES. The SWES provided an opportunity for the EPA to improve its status vis-a-vis the Department--an opportunity which it seized fairly effectively in asserting its opposition to the Kaiparowits proposal as imposing a danger to the near-pristine quality of the Four Corners region's air.⁶¹

When the BLM's Utah State Office was picked to prepare the impact statement, the center of EPA's activities related to the project shifted from its former headquarters location to the BLM's Region VIII office in Denver, Colorado. In existence only for a little over two years, the Region VIII office was presented an opportunity by the Kaiparowits impact statement preparation assignment to improve its presence in the region in issues of energy development. The exercise of their review responsibilities under NEPA and the Clean Air Act provided an important avenue for exploiting this opportunity, and the regional office brought to bear what was by far the greatest level of resources it had ever committed to reviewing an impact statement.⁶²

The region was interested primarily in concentrating its review efforts on areas relevant to EPA regulatory

authority (and not in peripheral social or aesthetic issues), in maintaining consistency with the region's emphasis on the prevention of environmental degradation over that of cleaning up existing pollution, and in avoiding over-zealousness that might leave the EPA open to damaging criticism from its opponents.⁶³ To these ends the region emphasized the regulations for the Prevention of Significant Deterioration (PSD) of air quality as "the single most important factor to be considered with regard to Kaiparowits."⁶⁴ The PSD regulations had been promulgated as the result of a successful suit brought by the Sierra Club against EPA, challenging the EPA's interpretation of its authority under the Clean Air Act in regard to protecting pristine areas. Consequently, the EPA Administrator issued regulations creating three classifications of clean air areas. For areas designated "Class I," nearly any increase in air pollution would be considered significant and would not be permitted. "Class II" designation would allow the deterioration of air quality normally accompanying moderate and controlled growth. Deterioration in areas designated "Class III" would be permitted up to national ambient air quality standards. Originally all areas of the country were designated as "Class II" and procedures were established for redesignation.⁶⁵ Besides providing some "teeth" to their review comments, the raising of the PSD regulations would also be an opportunity to court the favor of EPA's often belligerent environmentalist constituency.

One major obstacle confronted this chief portion of EPA's review strategy: EPA was uncertain whether or not the PSD regulations would be applicable to the Kaiparowits project. While the Clean Air Act provided the potential opportunity to threaten the project with PSD regulatory authority,

NEPA and the impact statement process provided the opportunity to prepare the groundwork necessary for clarifying its applicability.

The task of successfully implementing this strategy was fourfold. First, there was the need to refine predictive techniques to determine the potential violation of Class II and Class I categories. Second, there was the need to clarify the definition of the phrase "commence to construct" in the PSD regulations. Third, there was the need to exert pressure on the Department of the Interior to support the redesignation to Class I of national park areas potentially impacted by the powerplant. Fourth, there was the need to lobby Congress over their consideration of amendments to the Clean Air Act which would redesignate all national parks to Class I.

Early, close, and persistent involvement by the Region VIII Air Branch with the rest of the BLM team provided valuable access to first-hand information crucial to successfully supporting the use of the "thinly veiled threat" implied by the raising of the PSD regulations. Air Branch personnel, in cooperation with NOAA, had been directly involved in assisting BLM's air quality modeling efforts since the early phases of the statement's preparation. Three different dispersion models were at one time or another applied to the proposed Kaiparowits plant, all of which produced detailed and authoritative knowledge upon which to base the Bureau's review comments. While these efforts revealed that the plant would not be likely to violate the Class II increments, they did provide an impetus for the agency to pressure the Department of the Interior to seek Class I redesignation on the grounds that the Kaiparowits plant's emissions would severely affect visibility in national park areas and would be incompatible with the

mission of the Department's National Park Service (NPS). Considerable support was provided by EPA to the NPS efforts to persuade the Department to redesignate the park areas.⁶⁶ EPA pursued extensive lobbying in Congress in an effort to ensure support for amendments to the Clean Air Act under consideration which would legislate Class I designation for all national park areas.⁶⁷

Of more pressing importance to the EPA's review strategy was the need to clarify the definition of "commence to construct" to determine whether or not Kaiparowits would even be subject to the regulations. This was crucial because BLM and the utility companies were proceeding on the assumption that the plant would not be subject to the regulations because the boilers for the plant had been purchased about three months prior to the date after which new projects would be subject to the regulations. The Kaiparowits proposal served as a catalyst for the intensification of ongoing efforts in Region VIII's Enforcement Division to establish criteria for determining at what point in the planning and construction of a powerplant the project would be considered to have begun.⁶⁸ The greatest obstacle to the effort was the reluctance of EPA headquarters to provide the needed clarification of the issue. Persistent efforts by an Enforcement Division attorney, the Regional Administrator, and environmental groups (who were enlisted in a letter-writing campaign to headquarters) finally resolved the issue after the completion of the draft statement in favor of Region VIII's position.⁶⁹

A second, though less-emphasized, area of regulatory authority which EPA used the NEPA process to raise was in the area of water quality. EPA authority under the Federal Water Pollution Control Act Amendments (FWPCA) of 1972 would have been applicable to regulation of the effects on

Lake Powell of heavy metals and mercury from the powerplant and mine. EPA mainly limited itself to pointing out errors in the statement that dealt with EPA guidelines, rules, and regulations promulgated under the 1972 FWPCA, but it also noted that the proposed National Pollution Discharge Elimination System permit program would apply to the coal-mining facilities.

A final major area of concern to EPA was the question of the utility companies' projections of electricity demand, which provided the basic determination of the very need for the Kaiparowits project. EPA used the opportunity to suggest an independent study of projected electricity needs and to endorse conservation alternatives. This fundamental area of review was extremely weak in the Agency's comments on the draft impact statement, but the further review responsibilities under Section 309 provided Region VIII with the opportunity to develop a communication link with the EPA headquarter's Energy Policy staff. By so doing, Region VIII was able to draw on significant resources at headquarters devoted to a regionwide study of the issues of supply and demand, forecasting, and conservation alternatives⁷⁰ in order to challenge assumptions basic to the utility companies' decision-making.

A final set of actors for whom NEPA was intended to provide new opportunities for participation in decision-making is "the public." We consider the public in two parts: (1) the general public, and (2) organized "public interest" environmental groups.

The communication channel which NEPA opened to the general public was that provided by the opportunity to comment on the draft impact statement in written and oral testimony. BLM received 5,793 letters concerning the project with those opposing the project outnumbering those in favor by nearly a six-to-one margin.⁷¹ The results were tabulated "and placed in the official Kaiparowits file."⁷²

In addition to receiving written comments on the statement, BLM held eleven sessions of public hearings over a five-day period during which testimony was received from one hundred fifty-four individuals.⁷³ The hearings were presided over by a five-member panel whose members occasionally questioned witnesses. Originally the plan was to hold five simultaneous hearings presided over by only one or two officials. However, the controversial nature of the project demanded a more "official" decorum for public consumption and the administrative judge was included on the panel. Two of the panel members speculated that an additional member was also added at the last minute to accommodate the addition's need for public exposure for an upcoming bid for a U.S. Senate seat.⁷⁴

The two panel members who had been most closely involved in the preparation of the impact statement felt that the hearings were a useless mechanism for the public to reach and influence decision-makers, but they felt that the hearings did fulfill a symbolic purpose of evoking a feeling of meaningful participation on the part of the public, as well as providing them an opportunity to vent some "steam." They further stated that BLM would consider much more closely the written comments on specific deficiencies of the statement than they would the hearing transcripts. To demonstrate at least some degree of responsiveness to public participation and its value for improving the statement, portions of the draft impact statement were deliberately left incomplete or in an otherwise inadequate state with the intent of rectifying them in the final impact statement.⁷⁵

The principal objective of that portion of the public represented by organized environmental interest groups was to halt the project. According to one representative of the Sierra Club, the environmental impact statement process

did not afford an adequate opportunity for pursuing this objective. He felt that while the impact statement was valuable for the factual descriptions it presented and the process could be exploited for educational purposes and the calling of public attention to the project, the process nevertheless was not an effective means through which environmentalists could affect the final decision.⁷⁶ While environmentalists did participate in the process by testifying at the hearings and submitting written comments, they did so mainly, in cooperation with EPA, to gain an extension of the review period.⁷⁷

BLM officials noted that environmentalist participation in the preparation of the impact statement had been solicited but was limited, they believed, for fear of being too much a part of something they would later want to challenge in court.⁷⁸ However, the Sierra Club's Southwest Field Representative said that a lawsuit was a low-priority strategy for the organization to pursue. To challenge the statement on procedural grounds, he felt, would possibly delay the project further but would not justify the commitment of the group's limited resources necessary to initiate litigation. A challenge on substantive grounds was also regarded as unpromising because "the company would come and lay out all their studies and the multi-volume EIS--the judge would say it was obviously adequate."⁷⁹

Avenues other than those provided by NEPA were regarded as potentially more productive by environmentalists. The withdrawal of one of the four utility company participants was one blow to the project which the Sierra Club hoped to exploit by pursuing a strategy of convincing at least one other participant to do likewise on the grounds of excessive cost and the lack of need, based on updated demand projections. Other avenues entertained or pursued by the

Sierra Club included soliciting the Securities and Exchange Commission to enforce the law in regard to public disclosure requirements,⁸⁰ lobbying decision-makers and legislators, seeking greater media attention, and convincing other companies which might subscribe for the unallotted electricity not to do so. A successful petitioning of the California Public Utilities Commission by the Sierra Club produced a ruling that the two California participants in the proposed project would have to obtain a certificate of public convenience and necessity prior to the construction of Kaiparowits.⁸¹

CONCLUSION

In the case considered here, the environmental impact statement process and the resultant documents did not serve, nor were they intended to serve, as means for achieving the decision-making goals of NEPA. The subjection of the Kaiparowits proposal to the impact statement requirements of NEPA and the proposal's ultimate demise, despite the extraordinary commitment given to the statement's preparation, are not sufficient evidence of the attainment of NEPA's goals. The decision to abandon the Kaiparowits project cannot be attributed to the effectiveness of NEPA to influence the integration of environmental considerations on par with traditional economic and technological considerations. Rather, conditions were such for the utility companies that the decision to abandon the project was reached on sound business principles.

If NEPA's impact statement requirements were not a significant factor in the decision-making process, what significant impact, if any, did the production of the impact statement have? The answer can be given in terms of the

opportunities it provided to interested actors as a means for serving other ends which superceded those of improved decision-making. For the Department of the Interior, the controversial project provided an opportunity to improve its poor reputation with environmentalists by symbolically slapping the electric utility industry without fundamentally challenging the industry's traditional decision-making premises. Environmental units within the Department and the Bureau of Land Management Washington office seized the opportunity for purposes of solidifying their position within the bureaucracy. For EPA, the statement's preparation was a chance to regain prestige lost from previous exercise of its review responsibilities and to shed its over-zealous image in the eyes of the Department of the Interior. EPA also took advantage of the opportunity to improve relations with its environmentalist clientele through the invocation of the PSD regulations. For the BLM Region VIII office, it was a chance to improve its presence in the region and to establish new communication channels to Bureau headquarters. Environmental groups perceived no great opportunity presented other than for educational and publicity purposes, and they sought to gain their objectives primarily through other avenues. The utility companies, denied their accustomed position of dominance in the process, attempted to subvert, or at least to make more difficult, the task of preparing the statement. In the end, environmental considerations were used in part as a scapegoat for more serious problems faced by the industry. By the time the process of preparing the statement was completed, the project, fraught with uncertainties, had become a "white elephant" and was abandoned for reasons which were not chiefly environmental. To the extent that environmental considerations did play a part in the final decision to abandon the project, the decision was due more to potential congressional action to

amend the Clean Air Act and thus strengthen EPA regulatory authority.

While the Kaiparowits project environmental impact statement is a single case, we believe it has served to illustrate the utility of a framework of evaluation very different from that used by the Council on Environmental Quality. The goals, objectives, and resources of the individual participants in the decision-making process, rather than those of NEPA, are the focus of analysis. NEPA is seen as a new demand to which participants must react. Some, as was the case with the Environmental Protection Agency and the environmental sub-units within the Department of the Interior, can use the impact statement process to aggrandize their positions in the network of bureaucratic relationships. How well various actors are able to exploit the opportunity of a new procedural requirement depends upon the possession of sufficient and appropriate resources. One of the lessons of the Kaiparowits case is that powerful participants can successfully exploit rules changes to serve ends other than those of NEPA. In judging whether the increased formalization of impact statement rules and procedures which the CEQ and others suggest are advisable, policy analysis should suggest how the various participants in policy are likely to respond. It is altogether possible, as Edelman suggests, that more elaborate procedures in the current decision-making arena of electric power development will only make foreordained policies more legitimate and less vulnerable rather than more open to alternative solutions.

FOOTNOTES

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2. Rod J. McMullin, "The Electric Power Situation in the Southwest," (an address delivered at the Environmental Press Seminar, San Diego, California, April 26, 1973), p. 2.
3. For two accounts of these plans see Malcolm F. Baldwin, The Southwest Energy Complex: A Policy Evaluation (Washington, D.C.: The Conservation Foundation, 1973); and Daniel A. Dreyfus, "Federal Organization and Energy Policy Formation: Politics and Power in the Sonoran Desert" (Ph.D. diss., The American University, 1974), especially Chapters IV and V.
4. The Four Corners Plant in New Mexico and the Mohave Plant in Nevada.
5. On congressional intentions see Daniel A. Dreyfus and Helen M. Ingram, "The National Environmental Policy Act: A View of Intent and Practice," Natural Resources Journal 16 (April 1976), pp. 243-262.
6. On the role of the courts in NEPA's implementation see Frederick Anderson, NEPA in the Courts (Baltimore: Johns Hopkins Press, 1973).
7. Richard A. Liroff, A National Policy for the Environment (Bloomington, Indiana: Indiana University Press, 1976), p. 81.
8. U.S. Congress, Senate, 91st Cong., 1st sess., S. Rept. 91-296 (1969), cited in Alan S. Miller, Frederick R. Anderson, and Richard A. Liroff, "The National Environmental Policy Act and Agency Policy Making: Neither Paper Tiger Nor Straitjacket," Environmental Law Reporter 6 (March 1976), p. 50021.
9. National Environmental Policy Act of 1969 Sec 102(2)(B). Pub. L. 91-190, 42 U.S.C. 4321-4347, January 1, 1970, as amended by Pub. L. 94-83, August 9, 1975.

10. For one treatment of information and organizational change see Kenneth J. Arrow, The Limits of Organization (New York: W. W. Norton & Company, 1974).
11. Richard N. L. Andrews, "Environmental Policy and Administrative Change: The National Environmental Policy Act of 1969, 1970-1971" (Ph.D. diss., University of North Carolina, 1972), pp. 415-421.
12. Andrews, "Environmental Policy and Administrative Change," pp. 445-455.
13. Andrews, "Environmental Policy and Administrative Change," p. 462.
14. Victor A. Thompson, Bureaucracy and Innovation (University, Alabama: University of Alabama Press, 1969), p. 22.
15. See, for example, Allan F. Wichelman, "Administrative Agency Implementation of the National Environmental Policy Act of 1969: A Conceptual Framework for Explaining Differential Response," Natural Resources Journal 16 (April 1976), pp. 263-300.
16. Arrow, The Limits of Organization, pp. 49-59.
17. Wichelman, "Administrative Agency Implementation."
18. Wichelman, "Administrative Agency Implementation."
19. Thompson, Bureaucracy and Innovation, p. 22.
20. Thompson, Bureaucracy and Innovation, pp. 22-23.
21. Wichelman, "Administrative Agency Implementation."
22. See, for example, Gordon A. Enk, Beyond NEPA: Criteria for Environmental Impact Review (Rensselaerville, New York: The Institute on Man and Science, May 1973), Chapter 4.
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38. U.S. Congress, Senate, Committee on Interior and Insular Affairs, Problems of Electrical Power Production in the Southwest, Hearings, 92d Cong., 1st Sess., 1971, 7 vol.; see also Baldwin, The Southwest Energy Complex; and Thomas Brom, "The Southwest: America's New Appalachia," Ramparts 13 (November 1974), pp. 17-20.

39. Press release, Department of the Interior, May 1971.
40. Press release, Department of the Interior.
41. Department of the Interior files, Memorandum from J. Carter to EPA, NOAA, and Interior Agencies, July 27, 1973.
42. Memorandum, Bureau of Land Management, "CEQ Review of Implementation of NEPA," December 20, 1974, p. 40.
43. Memorandum, Bureau of Land Management, p. 6.
44. Memorandum, Bureau of Land Management [the Bureau recognizes a three-tiered hierarchy of impact statements: (1) programmatic EIS which "serve the broader purpose of analyzing authorities, policies, procedures, systems, and methods at the program level," (2) regional EIS which address environmental impacts on a broad geographical area, and (3) project EIS which analyze the impacts of the specific proposal], pp. 16, 18.
45. Memorandum, Bureau of Land Management, p. 18.
46. Illustrative of the strong emotional support of area residents was the crashing of an environmentalist publicity meeting in Page, Arizona, and the hanging in effigy of environmentalist-celebrity-actor Robert Redford after the postponement of the project.
47. Interview, Joel Varner, BLM team leader, and Frank Snell, Chief, Environmental Project Staff, BLM, Kanab, Utah, July 16, 1975.
48. Interview, Lillian Stone, Department of the Interior Environmental Project Review staff, Washington, D.C., March 26, 1976.
49. Interview, Bruce Bandurski, BLM Environmental Affairs staff, Washington, D.C., March 25, 1976.
50. Memorandum, Department of the Interior files, July 1974.
51. Interview, Verner and Snell.
52. Interview, Bandurski.
53. Interview, Verner and Snell.

54. Interview, Robert Currie, Kaiparowits Project Manager, Southern California Edison Co., Cedar City, Utah, July 15, 1975.
55. Interview, Lillian Stone.
56. Letter, from C. E. Hathaway, Right-of-Way and Land Department, Southern California Edison Co., to Roman H. Koenings, Assistant Director, Bureau of Land Management.
57. Interview, Currie.
58. Originally conceived in 1963 as a 6000-megawatt plant at a cost of \$750 million, Kaiparowits was later scaled down to a 3000-megawatt plant at a cost which eventually was estimated at \$3.5 billion. The companies estimated the potential cost of environmental protection equipment at \$600 million.
59. For an account of EPA's NEPA and Clean Air Act Section 309 authority see Martin Healy, "The Environmental Protection Agency's Duty to Oversee NEPA's Implementation: Section 309 of the Clean Air Act," Environmental Law Reporter, 1973, pp. 50071-50084. On the general issue of electric utilities and the Clean Air Act see Richard E. Ayers, "Enforcement of Air Pollution Controls on Stationary Sources Under the Clean Air Amendments of 1970," Ecology Law Quarterly 4 (1975), pp. 441-478.
60. Healy, "The Environmental Protection Agency's Duty," p. 50072.
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62. Ullery, "The Environmental Protection Agency."
63. Interview, Dan Dubois, Deputy Regional Administrator, EPA Region VIII, Denver, Colorado, May 3, 1976.
64. Letter, from John A. Green, Regional Administrator, EPA Region VIII, to Paul L. Howard, Utah State Director, BLM, November 17, 1975.

65. 40 Code of Federal Regulations, Pt. 52.21.
66. Interviews, John Lepley, Water Enforcement Section, Enforcement and Legal Support Branch, and Don Henderson, Air Branch, EPA Region VIII, Denver, Colorado, May 6, 1976.
67. Interview, Barbara Brown, Office of Transportation, EPA, Washington, D.C., March 1976.
68. Interview, Lepley.
69. Interview, Lepley.
70. Interview, James Speyer, Energy Policy Group, EPA, Washington, D.C., March 1976.
71. For: 837; Against: 4,933; Neutral: 23. BLM, Kaiparowits Final EIS, Ch. IX, p. 22.
72. Kaiparowits Final EIS, Ch. IX, p. 22.
73. Kaiparowits Final EIS, Ch. IX, p. 25.
74. Interview, Verner and Snell.
75. Interview, Verner and Snell.
76. Interview, John McComb, Southwest Representative, Sierra Club, Kanab, Utah, July 16, 1975.
77. Interview, Lepley.
78. Interview, Verner and Snell.
79. Interview, McComb.
80. Interview, McComb; in December 1974 a Federal District Court in Washington, D.C., ordered the Securities and Exchange Commission to consider whether "ethical investors" such as churches and universities want companies to disclose information about efforts to control pollution. The Sierra Club considered taking advantage of this to force Southern California Edison to disclose such information. However, in May 1976 the Commission ruled that companies need only supply estimates of capital outlays for environmental control facilities and do not have to supply information about environmental standards not being met. For reports see the Wall Street Journal, February 12, 1975, and May 7, 1976.

81. Prior to the ruling, John McComb wrote in the Sierra Club Bulletin (February 1976): "As it now stands, no government agency has determined whether this expensive and environmentally destructive project is really necessary in light of California's future energy demands. The utilities may escape an important form of regulation merely by locating the facility out of state."

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